

Amendments to the Claims

Please amend the claims as follows. The amendments to the claims are for clarification purposes and/or to correct typographical errors. Applicant submits no new matter has been added to the specification.

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-49 (cancelled)

50. (currently amended): A method for forming a sensor array configured to detect multiple analytes in a fluid, comprising:

forming a plurality of sensing elements having a predetermined shape, wherein a first portion of the sensing elements are configured to produce a signal in the presence of a first analyte and wherein a second portion of the sensing elements are configured to produce a signal in the presence of the second analyte, and wherein the first and second portions of the sensing elements have predetermined shapes, and wherein the shape of the first portion of the sensing elements is different from the shape of the second portion of the sensing elements;

placing the sensing elements in a liquid composition; and

curing the liquid composition to form a supporting member, wherein the sensing elements are at least partially embedded within the cured liquid composition.

51-75 (cancelled)

76. (currently amended): A method of sensing multiple analytes in a fluid comprising:

passing a fluid over a sensor array, the sensor array comprising a plurality of sensing elements coupled to a supporting member, wherein a first portion of the sensing elements are configured to produce a signal in the presence of a first analyte and wherein a second portion of the sensing elements are configured to produce a signal in the presence of a second analyte, and wherein the first and second portions of the sensing elements have predetermined shapes, and wherein the shape of the first portion of the sensing elements is different from the shape of the second portion of the sensing elements;

monitoring a spectroscopic change of the sensing elements as the fluid is passed over the sensor array, wherein the spectroscopic change is caused by the interaction of the analyte with the sensing element; and

determining the shape of the sensing elements that undergo a spectroscopic change.

77-97 (cancelled)

98. (previously presented) The method of claim 50, wherein forming a sensing element comprises polymerizing a monomer composition.

99. (previously presented) The method of claim 50, wherein placing the sensing element in a liquid composition comprises placing the sensing elements at the surface of the liquid composition.

100. (previously presented) The method of claim 50 wherein the sensing element comprises a

polymer.

101. (previously presented) The method of claim 50 wherein the sensing element comprises a polyethylene glycol hydrogel.

102. (previously presented) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor is configured to produce a signal when the sensing element interacts with the analyte during use.

103. (previously presented) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the polymeric body comprises a non-spherical shape.

104. (previously presented) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol polymer.

105. (previously presented) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol diacrylate.

106. (previously presented) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor is coupled to an outer surface of the polymeric body.

107. (previously presented) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor is at least partially encapsulated within the polymeric body.

108. (previously presented) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor comprises a nucleic acid.

109. (previously presented) The method of claim 76 wherein the sensing element comprises a polymer.

110. (previously presented) The method of claim 76 wherein the sensing element comprises a polyethylene glycol hydrogel.

111. (previously presented) The method of claim 76 wherein the sensing element comprises a receptor, and wherein the receptor is configured to produce a signal when the sensing element interacts with the analyte during use.

112. (previously presented) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body.

113. (previously presented) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a non-spherical shape.

114. (previously presented) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol polymer.

115. (previously presented) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol diacrylate.

116. (previously presented) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the receptor is coupled to an outer surface of the polymeric body.

117. (previously presented) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the receptor is at least partially encapsulated within the polymeric body.

118. (previously presented) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the receptor comprises a nucleic acid.